



MISSOURI
DEPARTMENT OF
NATURAL RESOURCES

Total Maximum Daily Load Information Sheet

Fee Fee Creek (new)

Water Body ID: 1704

Water Body Segment at a Glance:

County: St. Louis
Nearby City: Maryland Heights
Length of segment: 1.5 miles
Pollutants: Chloride and *E. coli* bacteria
Source: Urban runoff/Storm sewers



Statewide Map Showing Location of Watershed

Scheduled for TMDL development:

TMDL development schedules are subject to change.

The most current schedule for TMDL development is available on the department's website at dnr.mo.gov/env/wpp/tmdl/wpc-tmdl-progress.htm.

Description of the Problem

A water body is considered impaired when it fails to meet applicable water quality standards. Water quality standards consist of designated uses, water quality criteria, an antidegradation policy and implementation procedures. Fee Fee Creek is impaired due to exceedances of water quality criteria that protect aquatic life and recreational uses.

Designated uses of Fee Fee Creek*

- Warm Water Habitat (WWH)
- Whole Body Contact Recreation Category B (WBC-B)
- Secondary Contact Recreation (SCR)
- Human Health Protection (HHP)
- Irrigation (IRR)
- Livestock and Wildlife Protection (LWP)

*In addition to these specific uses, all waters of the state are protected by the general water quality criteria that are specified in the state's Water Quality Standards at 10 CSR 20-7.031(4).

Use that is impaired

- Warm Water Habitat (WWH)
- Whole Body Contact Recreation Category B (WBC-B)

Criteria that apply

- Numeric criteria for chloride are found in Table A of Missouri's Water Quality Standards at 10 CSR 20-7.031 and are dependent upon water hardness and sulfate concentrations. However, this criteria was disapproved by the U.S. Environmental Protection Agency. The assessment of Fee Fee Creek as impaired by chloride is based on the state's previously approved chronic criterion of 230 milligrams per liter (mg/L).
- Bacteria criteria for the protection of recreational uses are found at 10 CSR 20-7.031(5)(C) and Table A. For category B waters, the *E. coli* bacteria count, measured as a geometric mean, shall not exceed 206 counts per 100 milliliters of water (mL) during the recreational season. The recreational season is defined as being from April 1 – October 31.

Assessment and water quality data

The department judges a stream to be impaired by chloride if the criterion is exceeded more than once in the last three years of data when the stream is at stable flow conditions. Data collected from Fee Fee Creek from 2009 to 2012 show that there were four exceedances of the chronic chloride criterion at stable flow conditions (Figure 1).

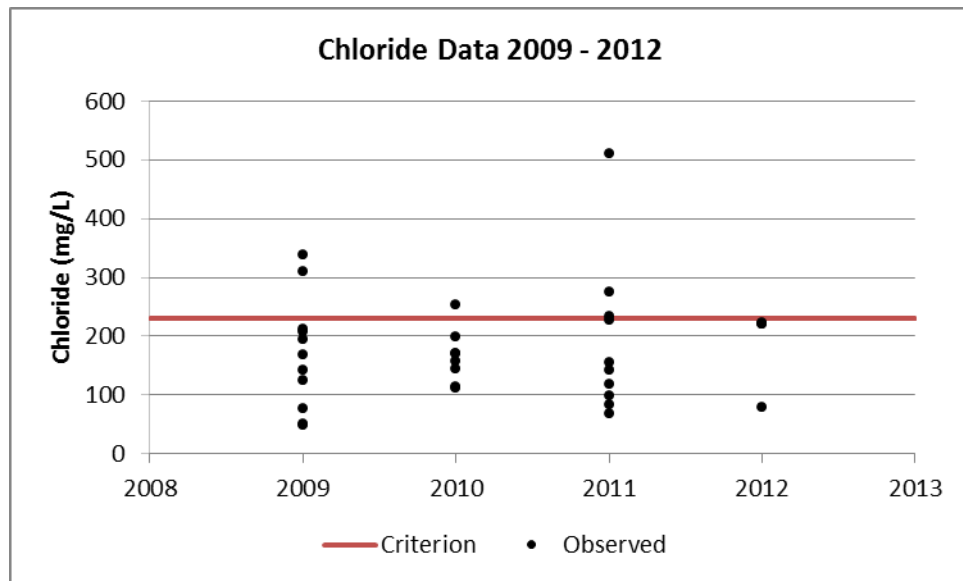


Figure 1

A stream is judged as impaired by bacteria if the water quality criterion is exceeded in any of the last three years for which there is a minimum of five samples taken during the recreational season. Adequate bacteria data to assess Fee Fee Creek is available from 2009 – 2011. The whole body contact recreation category B criterion was exceeded in 2009 and 2010 (Figure 2).

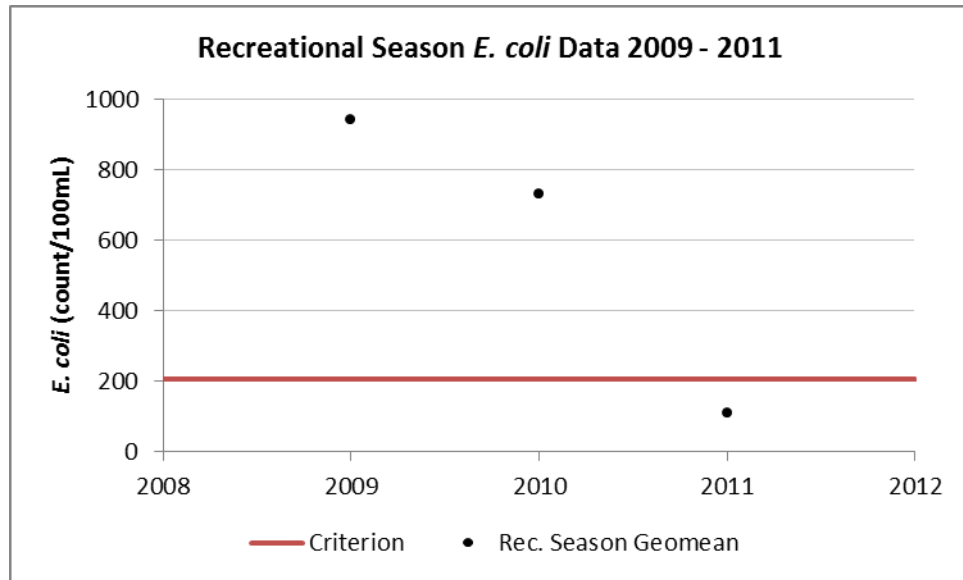


Figure 2

TMDL for Fee Fee Creek

The Fee Fee Creek TMDL will calculate the maximum amount of each listed pollutant that the stream can receive and still meet water quality standards. The TMDL will also identify all potential or suspected pollutant sources in the watershed and distribute the allowable pollutant loads among those various sources. When developed, the Fee Fee Creek TMDL will use the most current and available data. For this reason, the final TMDL may present information that differs from that contained in this information sheet.

For more information call or write:

Department of Natural Resources
Water Protection Program – Watershed Protection Section
P.O. Box 176
Jefferson City, MO 65102-0176
Ph: 1-800-361-4827 or 573-751-1300
Fax: 573-526-6802
Email: TMDL@dnr.mo.gov
Program Home Page: dnr.mo.gov/env/wpp/index.html

Map of the Fee Fee Creek Watershed

